REMARKS / ARGUMENTS

Claims 1-22 and 24-46 are pending in the instant application. Claim 23 has been previously cancelled. Claims 1, 9, 17, 27 and 37 are independent claims. Claims 2-8, 10-16, 18-22, 24-26, 28-36, and 38-46 depend from claims 1, 9, 17, 27 and 37, respectively. The Applicant respectfully submits that the claims define patentable subject matter in view of the following remarks.

Claims 1-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPP 20020085719 ("Crosbie") in view of USP 6,069,871 ("Sharma").

REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at

1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness.

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

I. The Proposed Combination of Crosbie and Sharma Does Not Render Claims 1-22 and 24-26 Unpatentable

The Applicant now turns to the rejection of claims 1-22 and 24-46 under 35 U.S.C. 103(a) as being unpatentable over Crosbie in view of Sharma.

A. Rejection of Independent Claims 1, 9, 17, 27 and 37

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Crosbie and Sharma does not disclose or suggest at least the limitation of "receiving one or more polling message from an access device by one or more of a plurality of access points in a hybrid wired/wireless local area network; responsive to said one or more polling

message, communicating a load on said one or more of said plurality of access points to a switch," as recited in Applicant's claim 1.

In the Final Office Action, the Examiner states the following:

> "Regarding claim 1, Crosbie discloses …**Receiving one or more polling message** from an access device by one or more of a plurality of access points in a hybrid wired/wireless local area network [**receiving service request message** from mobile device by access point in a hybrid wired/wireless local area network [hybrid wired/wireless network: Figure 1] [service request message: 0044];"
>
> determining a load on said one or more of said plurality of access points for optimal loading balancing [Roaming server i.e., switch: 0035] [In responsive to service request message, Roaming server determines loads on relevant access points and centrally controls the network based on determined loads on access points for load balancing among access points and improving the radio link quality of service: 007, 0042-0047 & 0055]; …"

See pages 2-3 at the Final Office Action. The Examiner equates Crosbie's wireless local area network, mobile device 26 and roaming server 22 to Applicant's "hybrid wired/wireless local area network", "access device" and "switch", respectively. The Examiner also equates Crosbie's service request to Applicant's "polling message". The Applicant respectfully disagrees. The Examiner relies for support on the following citation of Crosbie:

> "In operation, the mobile device 26 requests service from an access point 24 by sending a request along with the device address of the mobile device 26…"

See Crosbie at ¶0044. Crosbie discloses "sending a request along **with the device address of the mobile device** 26", where the request contains only

the **device address of the mobile device** 26. There is simply no disclosure that Crobsie's service request is the alleged "polling message", or the service request includes a "polling message". In this regard, the Applicant maintains that Crosbie at least does not disclose or suggest "receiving one or more polling message from an access device by one or more of a plurality of access points in a hybrid wired/wireless local area network". Sharma does not overcome Crosbie's above deficiency.

Nevertheless, even assuming arguendo, that Crosbie's service request is the alleged "polling message" (which it is not), Crosbie still does not disclose or suggest "**communicating a load on** said one or more of **said plurality of access points to a switch**," as recited in Applicant's claim 1. For example, the Examiner is referred to the following citation of Crosbie:

> "…the access point 24 passes the request along with the device address of the mobile device 26 back to **the roaming server 22 which looks up the user's service level data 47 in the device database 42** (see FIG. 2) **and the loading on each of the relevant access points 24** (e.g., traffic or congestion on the subnet that the mobile device 26 is connected to)."

See Crobsie at ¶0044. Crobsie clearly discloses that the roaming server 22 **looks up the user's service level and the relevant AP 24 and the loading in the device database** 42. Consequently and necessarily, the Examiner concedes the following in the Final Office Action about Crosbie:

> "Crosbie …does not explicitly disclose **communicating a load of access point to a switch in response to polling message** i.e., service request message."

See page 3 at the Final Office Action. The Examiner looks to Sharma to overcome Crosbie's above deficiency and states the following:

> "Sharma et al. also discloses the centrally controlled optimal load balancing method in a wireless network [see Figures] in which access points i.e., Base stations communicate load information to the switch i.e., BSC in response to mobile device service request message [Column 4, Line 65-Column 5, Line 60]."

See page 3 at the Final Office Action. The Examiner's reliance on Sharma to overcome Crosbie's above deficiency is moot based on Applicant's above argument that Crosbie and Sharma do not disclose the alleged "polling message". Therefore the Applicant maintains that the combination of Crosbie and Sharma does not disclose or suggest "**responsive to said one or more polling message**, communicating a load on said one or more of said plurality of access points to a switch …" as recited in Applicant's claim 1.

Even assuming arguendo, that Crosbie's service request is the alleged "polling message" (which it is not), Sharma still does not disclose or suggest "**communicating a load on** said one or more of said plurality of access points **to a switch**, wherein **said switch determines optimal load balancing** for said one or more of said plurality of access points based on said communicated load," as recited in Applicant's claim 1.

For example, even though Sharma discloses a mobile switching center (MSC) 102 (the alleged "switch"), base station transceiver BTS 108A (the alleged "AP"), capacity indications (the alleged "load information") and allocation determination (the alleged "optimal load balancing"), Sharma (see Sharma col. 4 line 64 - col. 5, lines 1-60) discloses that the base station transceiver BTS 108A (the alleged "AP") sends capacity indications (the alleged "load information") **to a base station controller BSC** 104, i.e., **not the mobile switching center** (MSC) 102 (the alleged "switch"). Therefore, Sharma does not overcome Crosbie's deficiency, namely, "**communicating a load on** said one or more of said plurality of access points **to a switch**, wherein **said switch determines optimal load balancing for** said one or more of **said plurality of access points based on said communicated load**" as recited in Applicant's claim 1.

Moreover, the Applicant submits that the combination of Crosbie and Sharma does not disclose or suggest "communicating information of said determined optimal load balancing for said one or more of said plurality of access points to said access device, wherein said access device selects and re-establishes communication with one or more of said plurality of access points based on said communicated information of said determined optimal load balancing," as recited in Applicant's claim 1.

The Examiner further states the following in the Final Office Action:

> "Crosbie discloses…**Communicating information of said determined optimal load balancing for said one or more of plurality of access points to said access device, wherein said access device selects** [communicating less congested access point to mobile device for mobile device to select less congested access point: (0044 & 0045)] **and re-establishes communication with one or more of said plurality of access points based on said communicated information of said determined optimal load balancing** [communicating the mobile device to re-establish with less congested access point based on said communicated information of said determined optimal load balancing: 007,0042-0047 & 0055].
>
> Thus, Crosbie discloses that communication set up and hand-off management centrally controlled by roaming server i.e., claimed switch according to load information of access points to achieve network optimal load balancing [0044]…"

See pages 2-3 at the Final Office Action (emphasis added). In addition to Applicant's above arguments (i.e., the combination of Crosbie and Sharma does not disclose Applicant's "**communicating a load on** said one or more of said plurality of access points **to a switch**, wherein **said switch determines optimal load balancing for** said one or more of **said plurality of access points based on said communicated load**"), the Applicant points out that Crosbie does not disclose or suggest "said **access device selects and re-establishes** communication **with** one or more of said **plurality of access points based on** said communicated information of said **determined optimal load balancing**," as recited in Applicant's claim 1.

For example, the Examiner is referred to the following citation of Crosbie:

> "**The roaming server 22 may direct the mobile device 26 to a different access point 24**. In either case the mobile device 26 is forced to transfer its connection 30. For example, a user moves a mobile device 26 within range of both access points 24-1, 24-2. The mobile device 26 seeks to make a connection 30-1 to congested access point 24-1. **The roaming server 22 thus directs the mobile device 26 to join a less congested access point 24-2, with the result shown by connection 30-2**. Subsequently, the mobile device 26 moves to the less congested access point 24-2 in a seamless handoff, according to the techniques of the invention as described herein, without requiring re-registration with the roaming server 22."
>
> ...**The roaming server 22 directs the mobile device 26 to transfer from the primary access point 24-1 to a secondary access point 24-2** that has the better connection quality for the connection 30-2 (quality of the radio link) to the mobile device 26."

See Crobsie at ¶¶0045-0047 (emphasis added). Crobsie clearly discloses that it is the roaming server 22 (the alleged "switch"), not the mobile device 26 (the alleged "access device"), which makes the decision to direct (the alleged "selection") the transfer of the mobile device 26 to leave from a congested AP 24-1 and to join a less congested AP 24-2 (the alleged "re-establishes communication with AP"). In this regard, Crosbie does not disclose or suggest "said **access device selects and re-establishes** communication **with** one or more of said **plurality of access points based on** said communicated information of said **determined optimal load balancing**," as recited in Applicant's claim 1.

Likewise, Sharma discloses that the BSC 104 (which is not the alleged "switch") performs dynamic load balancing to query the BTS (the alleged "APs") in the wireless system 100, and directs the mobile unit 134 (the alleged "access

device") to execute a soft handover (the alleged "re-establishing communication") between BTS 110A to BTS 112A (the alleged "APs"). The Examiner is referred to the following citation of Sharma:

> "…In response, **the BSC 106 queries BTSs 114A and 114B for capacity information**. Based upon the responses received from BTSs 114A and 114B, **the BSC 106 assigns a traffic channel on the first carrier frequency**, serviced by BTS 114A and corresponding to cell 126A…
>
> …Prior to directing the handoff, the wireless communication system 100 performs dynamic load balancing to balance loading on the first carrier frequency and the second carrier frequency. **In performing dynamic load balancing, the BSCs 104 and 106 query BTSs 110A, 110B and 112A, 112B, respectively to determine loading**. Depending upon loading in cells 122A, 122B, 124A and 124B, the wireless communication system 100 either **directs the mobile unit 134 to execute a soft handoff on the first carrier** frequency to BTSs 110A and 112A or **to execute a hard handoff by moving from the first carrier frequency to the second carrier frequency served to BTSs 110B and 112B**."

See Sharma at col. 5, lines 25-60 (emphasis added). Sharma does not disclose that the mobile unit 134 (the alleged "access device") receives the alleged "optimal load balancing information" to select a BTS (the alleged "AP") for a soft handover (the alleged "re-establishing communication"). Instead, Sharma discloses that the base station controller BSC 106 performs load balancing and assigns carrier frequency traffic channels to the BTS (the alleged "AP") to execute both hard and soft handoff (the alleged "re-establishing communication"). In this regard, Sharma also does not overcome Crosbie's above deficiency.

Accordingly, based on the foregoing rationale, the Applicant maintains that the combination of Crosbie and Sharma does not establish a prima facie case of obviousness to reject Applicant's claim 1. The Applicant respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn.

Likewise, independent claims 9, 17, 27 and 37 are similar in many respects to claim 1, and are therefore submitted to be allowable for the same rationale presented in claim 1.

B. Rejection of Dependent Claims 2-8, 10-16, 18-22, 24-26, 28-36 and 38-46

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 17, 27 and 37 under 35 U.S.C. § 103(e) as being unpatentable by the combination of Crosbie and Sharma has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-8, 10-16, 18-22, 24-26, 28-36 and 38-46 depend directly or indirectly from independent claims 1, 9, 17, 27 and 37, and are, consequently, also respectfully submitted to be allowable.

The Applicant reserves the right to argue additional reasons to support the allowability of claims 1-22 and 24-46 should such a need arise.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-22 and 24-46 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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